



# Electric Program Investment Charge



***Cem Turhal and Andy Schwartz***  
***California Public Utilities Commission***  
***Energy Division***  
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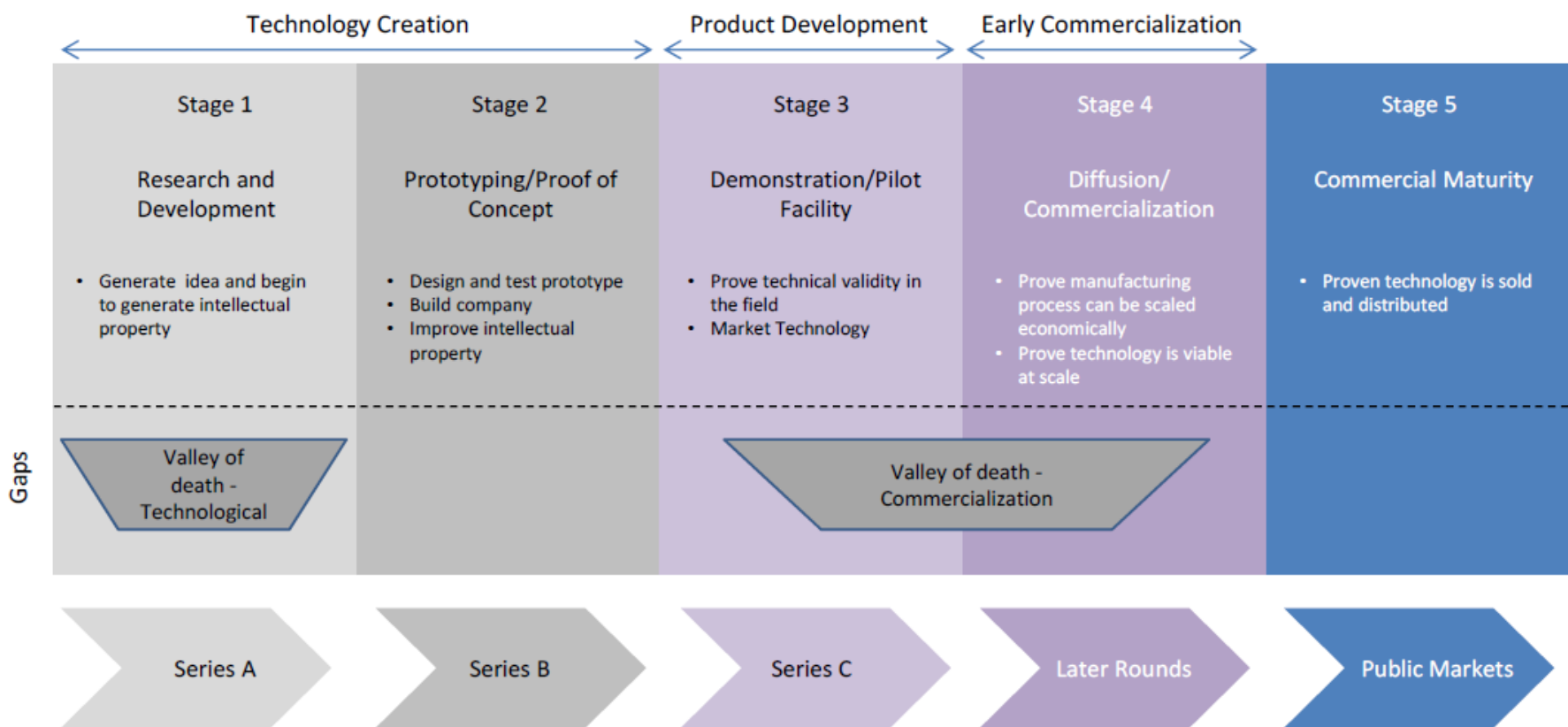


# EPIC Program- Background

- The Public Goods Charge expired on December 31, 2012, creating a significant policy gap in the area of emerging clean energy technology support.
- To address this gap, In May of 2012 the CPUC adopted D.12-05-037, establishing a framework for the deployment of funds to provide ongoing support for the development and deployment of next generation clean energy technologies.
- This program, funded via the Electric Program Investment Charge, provides \$162 million in annual funding, with those funds administered by the CEC, as well as the Investor Owned Utilities.



# EPIC- Technology Maturation Curve



Adapted from "Crossing the Valley of Death: Solutions to the Next Generation Clean Energy Project Financing Gap." Bloomberg *New Energy Finance*. p. 5.



# Key Areas and Definitions

- Applied Research: Activities supporting pre-commercial technologies and approaches that are designed to solve specific problems in the electricity sector.
- Technology Demonstration and Deployment: The installation and operation of pre-commercial technologies or strategies at a scale sufficiently large and in conditions sufficiently reflective of anticipated actual operating environments to enable appraisal of the operational and performance characteristics and the financial risks.
- Market Support: Incentives to support technologies that are commercially proven but need assistance to achieve economies of scale and be competitive with other more established technologies.
- Market Facilitation: A range of activities including program tracking, market research, education and outreach, regulatory assistance and streamlining, and workforce development to support clean energy technology and strategy deployment.



# EPIC Program- Funding Areas

Funding Element	CEC	Utilities	CPUC	Total (\$ Millions)
Applied Research	\$55.0	-	-	\$55.0
Technology Demonstration and Deployment	\$45.0*	\$30.0	-	\$75.0
Market Facilitation	\$15.0	-	-	\$15.0
Program Administration	\$12.8	\$3.4	-	\$16.2
Program Oversight	-	-	\$0.8	\$0.8
Total (\$ Millions)	\$127.8	\$33.4	\$0.8	\$162.0

\* A minimum of 20% of the CEC's funding for technology demonstration and deployment must be used for bioenergy projects



# Program Administrators and Funding Amounts

Administrator	Funding Areas
California Energy Commission	<ul style="list-style-type: none"><li>• Applied Research - \$55 million</li><li>• Technology - Demonstration and Deployment - \$45 million</li><li>• Market Facilitation - \$15 million</li></ul>
Pacific Gas & Electric	<ul style="list-style-type: none"><li>• Technology Demonstration and Deployment - \$15 million</li></ul>
San Diego Gas & Electric	<ul style="list-style-type: none"><li>• Technology Demonstration and Deployment - \$3 million</li></ul>
Southern California Edison	<ul style="list-style-type: none"><li>• Technology Demonstration and Deployment - \$12 million</li></ul>



# EPIC Program- Schedule

	<b>Investment Plan 1</b>	<b>Investment Plan 2</b>	<b>Investment Plan 3</b>
Funding Period	2012 - 2014	2015 - 2017	2018 - 2020
Investment Plan Development	July – October 2012	January – March 2014	January – March 2017
Proposed Plan Submitted to CPUC	November 1, 2012	May 1, 2014	May 1, 2017
CPUC deliberations	November 2012 – April 2013	May – November 2014	May – November 2017
CPUC Decision	May 2013	December 2014	December 2017



# Investment Plan – Key Principles

- Provide electric ratepayer benefits
  - Enhance reliability and safety
  - Reduce costs
  - Advance the “Loading Order”
  - Promote economic development
  - Reduce GHG emissions
  - Support clean transportation
  - Use ratepayer funds efficiently
- Proposed funding activities should be “mappable” to the utility value chain
  - Operations/market design
  - Generation,
  - Transmission & distribution,
  - Demand side management.



# Administrators to Propose Key Programmatic Elements

- Specific funding areas
- Funding amounts by area
- Project eligibility criteria
- Project selection criteria and approach (e.g. RFO, sole source, etc.)
- Per project funding limits
- Matching requirements
- Metrics for measuring benefits and success
- Treatment of intellectual property



# EPIC Program- Reporting and Ongoing Oversight

- Program Administrators shall file reports annually starting on February 28, 2013 to February 28, 2020.
- CPUC will hire an Independent Evaluator to review the EPIC program by 2016.



# CPUC Staff Contacts

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